

ABSTRACT OF THE DISCLOSURE

A method of processing internal operations in a network switch includes the steps of constructing a lookup table in system memory by snooping a communication channel in a network switch for lookup table information. Upon detection of lookup table information on the communication channel, the lookup table information is transmitted to a remote system memory, thereby constructing a lookup table in the remote system memory. DMA operations are performed by providing a DMA descriptor including a reload field therein. The DMA descriptor is processed, and a location of a next DMA descriptor is identified based upon a condition of the reload field. The lookup table in remote system memory enables CPU access to the lookup table without requiring communication on the communication channel. The condition of the reload field enables flexible DMA descriptor handling. A network switch also includes elements associated with this method.